

Title (en)
SIMULTANEOUS SERIAL TRANSMISSION OF MESSAGES WITH BIT-ARBITRATED SELECTION OF THE NUMERICALLY LARGEST OR SMALLEST VALUE IN THE MESSAGES' DATA FIELDS

Title (de)
GLEICHZEITIGE SERIELLE-NACHRICHTEN-ÜBERTRAGUNG MIT EINER BIT-AUSWAHLSARBITRIERUNG DES GRÖSSTEN ODER KLEINSTEN ZAHLENWERTES IN DEN NACHRICHTEN-DATENFELDERN

Title (fr)
TRANSMISSION SERIE SIMULTANEE DE MESSAGES AVEC SELECTION PAR ARBITRAGE SUR LES BITS DE LA VALEUR NUMERIQUEMENT LA PLUS ELEVEE OU LA PLUS FAIBLE DANS LES CHAMPS DE DONNEES DES MESSAGES

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EP 1371182 A2 20031217 (EN)

Application
EP 02731115 A 20020307

Priority
• US 0206888 W 20020307
• US 80225401 A 20010308

Abstract (en)
[origin: WO02077832A2] A communication system has a number of nodes connected to a serial data bus. Nodes communicate with each other by transmitting dominant and recessive bits during bit intervals as taught by CAN (controller area network) arbitration protocol. According to the CAN arbitration protocol, any dominant bit transmitted during a bit interval causes the bit value received to be a dominant bit regardless of the number of recessive bits being sent. The system is arranged so that two or more nodes each respond to a report query message sent by one of the nodes, with a report message sent simultaneously by each of the nodes. The headers (leading bits) of each of the report messages sent by nodes responding to a report query message are the same, allowing arbitration on a trailing node data field. This results in the message having the numerically largest (or smallest) node data field value to survive arbitration. Thus a number of nodes can be polled with a report query message and will respond by simultaneously sending each node's numerical data value with the largest or smallest of these data values received by the system's nodes.

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